QUALITY ASSURANCE/QUALITY CONTROL

SM 3020 - 2005 *(As published in SM 22nd Edition and SM 3020 Online 2005)*

Facility Name:_____VELAP ID_____

Assessor Name:_____ Inspection Date_____

Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Interviews may omit MDL questions <u>if ALL of the following are TRUE</u>: TRUE false This analyte/method/matrix combination has been reviewed at a previous on-site assessment by VELAP. TRUE false The laboratory NEVER reports a result generated below the lowest calibration standard. TRUE false The laboratory's scope of accreditation does not include drinking water as a matrix for this method/analyte. TRUE false The laboratory's customer report does not state the laboratory's MDL. TRUE false The laboratory has provided documentation of annual Limit of Quantitation verification (or more frequent if required by method).					
(1) Were IDCs performed initially and repeated periodically (annually or when there is a new analyst, whichever is more frequent) by analyzing 4 samples of known concentration that is unknown to the analyst.	3020 B.1.a				
(2) Were MDLs (LODs) initially determined for each analyte according to the procedure in SM 22nd 1030 C, or procedure prescribed by regulatory authorities, or other applicable procedure (See 3020 B.1.b)?	3020 B.1.b				
(3) Were MDLs verified for each new analyst? *NOTE: MDL verification per analyst is not required when test results are not reported outside the calibration range.*	3020 B.1.b				
(4) Were MDLs verified whenever instrument hardware or operating conditions were substantially modified?	3020 B.1.b				
(5) Were MDLs determined annually, for each analyte and method? *NOTE: Annual verification for drinking water matrix is required. Annual verification is not required for other matrices when test results are not reported outside of the calibration range (2003 NELAC Chapter 5 Appendix D.1.2.1).*	3020 B.1.b				
(6) Was the Linear Dynamic Range (LDR) determined before using a new method?	3020 B.1.c				
(7) Was the LDR determined by successive analyses of higher concentration of standards until the results were less than 90% of the target value?	3020 B.1.c				
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(8) Was the LDR verified whenever there were significant changes in instrument conditions or analytical process?	3020 B.1.c				
(9) Were initial calibrations performed **at the beginning of each batch** of samples and whenever calibration verification acceptance criteria are not met? *NOTE: Provide explanation of 'batch' if not 'daily'. See standard or regulation for definition of analytical batch.*	3020 B.2.a				
(10) Were the instrument calibration ranges within the instrument LDRs?	3020 B.2.a				
(11) If not specified in a method, were at least 3 standards plus a blank used for calibration?	3020 B.2.a				
(12) Were correlation coefficients greater than or equal to 0.995 for analyses using multiple standards for a least-squares fit calibration?	3020 B.2.a				
(13) Was the second source calibration verification between 90% and 110% except for ICP-AES which **should** be between 95% and 105% of expected values?	3020 B.2.b				
(14) Were the acceptance criteria of the Initial Calibration Verification (ICV) between 95% and 105% of the expected values?	3020 B.2.c				
(15) Were the acceptance criteria of Continuing Calibration Verifications (CCVs) between 90% and 110%?	3020 B.2.d				
(16) Was a Reporting Limit Check Solution (RLCS) analyzed after calibration but before any sample analyses?	3020 B.2.e				
(17) Did the lab have an acceptance criterion for the RLCS such as between 50% and 150%?	3020 B.2.e				
(18) Was a field blank used to assess whether analytes or interference could have contaminated the samples during the sampling process? (Method does indicate required)	3020 B.2.g				
(19) Did standard used for Laboratory Fortified Matrix (LFM) spiking add less than or equal to 5% of sample volume?	3020 B.2.h				
(20) Were LFM recoveries between 70 and 130% of the fortified value? (*"should"*)	3020 B.2.h				
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(21) Were "**LFM and LFMD pairs**" used to evaluate accuracy and precision?	3020 B.2.h				
(22) Were the percent differences between LFM and LFMD less than 20%? (*"should"*)	3020 B.2.h				
(23) Was an LFM/LFMD pair included at a minimum of one per 20 samples in an analytical batch?	3020 B.2.h				
(24) Were LFMs fortified before sample preparation?	3020 B.3.c				
(25) Were Laboratory Fortified Blank (LFB) concentrations prepared at approximately the mid-point of the calibration curve?	3020 B.3.b				
Notes/Comments:					